

Number 55
March 1972

ASF NEWSLETTER

AUSTRALIAN SPELEOLOGICAL FEDERATION



NIBICON

NINTH BIENNIAL CONVENTION

SYDNEY Dec. 1972

ANNUAL SUBSCRIPTIONS : MEMBERS 80¢ : NON-MEMBERS \$1 : SINGLE COPIES 50¢

Registered in Australia for transmission
by post as a periodical - Category B

ASF NEWSLETTER

PUBLISHED QUARTERLY BY THE

Australian Speleological Federation

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A.S.F. SUBSCRIPTIONS: Forward annually, with membership addresses, to the Treasurer.
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ASF NEWSLETTER

Number 55
March (autumn) 1972

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EDITORIAL

This issue of the Newsletter marks another remarkable milestone for the Australian Speleological Federation. For the first time ever, the Editor has to apologise for having so much material (not only unpublished, but unsolicited!) that he has to defer some to the next issue. Thanks to Ted Anderson, Andrew Grahame, Lloyd Robinson and Peter Bridge for their very welcome contributions.

The Editor resisted the temptation to pressure the Federation Committee into a fee rise this year, and instead settled for a micro-face typewriter. This machine is here on a test run this issue and may prove unsuitable. However it squeezes up to 50% more into the same space, so please bear with us, the budget is limited.

If your copy has irregular quality, please remember how the Editor has to type that extra 50% or so, and it only costs you 20 cents an issue anyway, less than most club newsletters and better quality than any of them.

The Newsletter Commission has immense faith in the future of Australian speleology and in the central role of A.S.F. Thanks and congratulations to all who continue their support for the Newsletter. We hope you like the attempts to improve layout and quality and we invite your comments. Do you want more photographs (they're expensive) or maps, review articles etc? Does DOWN UNDER ALL OVER interest you or bore you with its inanities? Fed up with Editorials? WRITE AND TELL US.

NOTICES

NINTH BIENNIAL CONVENTION

The Ninth Biennial Convention of the Australian Speleological Federation will be held in Sydney from 26 - 30 December, 1972, with field trips to follow. Preliminary details within.

ADDRESS CHANGES

Correspondents are asked to note the following recent address changes ::

HIGHLAND CAVING GROUP - 44 King St, ST MARYS, NSW 2760

CENTRAL QUEENSLAND SPELEOLOGICAL SOCIETY 214 North St, Rockhampton, Qld 4700

PROCEEDINGS OF EIGHTH BIENNIAL CONFERENCE

The Proceedings of the Eighth Biennial Conference of the A.S.F. have just been published. TCC/SCS and especially Albert Goede and Bob Cockerill must be congratulated on the very high quality (offset multilith). Conference participants will receive a free copy automatically, and a limited number of copies are for sale at \$3 from TCC or SCS or from John Dunkley in Sydney (for addresses see inside front cover)

S T O P P R E S S - KHAZAD DUM GOES!

A possible bypass around the siphon at -1029ft (new surveyed depth) has been discovered in Australia's deepest cave, Khazad Dum. A large horizontal passage up to 50ft wide leads off at the -800ft level and has not been pushed. The cave is now closed until next summer and no doubt excitement will mount as the summer of '72-73 approaches.

COMING IN THE NEXT ISSUE

Glacier Caves in New Zealand, Report with Recommended Safety Code, Preliminary Report on Survey Standards, Water Pollution in S.E. South Australia, Tourist Cave Discussion.

EDITOR'S AWARDS 1971

The Editor's rash promises in the March 1971 issue will be fulfilled in the next issue !!

THE BUNGONIA COMMITTEE

Readers will by now be familiar with the long expensive litigation undertaken by Warwick Counsell (Vice-President UNSWSS) to contain mining incursions near Bungonia Caves. The implications of the present case, in which APCM(Aust) is again the villain, are no less significant than Colong. To receive donations administer finances and provide publicity in a responsible manner, the Bungonia Committee has been formed as a trusteeship. Initial trustees and members are several well-known Sydney speleologists: Warwick Counsell, John Dunkley, Greg Middleton, Ben Nurse and Andrew Pavey.

Several individuals, societies and institutions, including ASF, already have made donations in cash or kind, and much publicity has been gained through the S.M.H., Australian, Goulburn Evening Post and Canberra Times and on local TV stations. Information is available from, and donations should be sent to: P.O. Box C317, Clarence Street, Sydney. N.S.W. 2000.

AUSTRALIA'S LONGEST AND DEEPEST CAVES

by ROSS ELLIS

At the 1971 Federation Conference in Tasmania a series of Commissions were created. I was elected Convenor of the Commission on the Longest and Deepest Caves (in Australia); The duties of the Convenor being:

1. To compile and regularly update a listing of the longest and deepest caves in Australia according to surveyed data.
2. To forward such data from time to time to the appropriate Commission of the International Union of Speleology.

Towards these aims an article was prepared and published in ASF Newsletter 52:19-22. This article outlined my duties, explained the criteria for measuring the lengths and depths of the caves, listed my estimation of the top 25 contenders in each category, and requested further and more specific details from Australian cavers, particularly those engaged in surveying.

Since publication of this article I have received correspondence giving suggestions and additional information and from this I have compiled the revised and enlarged lists appended to this report. For their help towards the compilation of these lists, I would like to thank Mike Bourke, John Dunkley, Albert Goede, Bob Hawkins, Kevin Kiernan, Ron Lorraway, Trevor Maddock, Don Matts, Greg Middleton and Andrew Pavey.

A list has not yet been forwarded to the IUS as I do not consider that the list of the longest caves is accurate enough at the present time. Many of the lengths (and some of the depths) are only estimates (rough ones at that) and this does not comply with the term of reference stating that the lengths and depths should be compiled from surveyed data.

It would be very commendable if passage lengths were totalled up during initial surveys and that notes giving total passage lengths and depths were added to surveys when they are drawn. This information would also be very useful if it could be given in trip reports detailing surveying work. Most trips reports state that an additional 1000' of cave passage was surveyed but they do not mention what the previous or new total length of passage happens to be.

The lengths of most of the caves in the first list below are estimates which are likely to be at least 50' (15 metres) in error; some will be hundreds of feet out. For a more accurate list I would like to work to an accuracy of about 30' (10 metres).

If the delegates of the various Societies could make a point of requesting the help of their members in the compiling of these lists, it would be greatly appreciated. Anyone with information relevant to the ASF Commission on Longest and Deepest Caves is requested to send the details to me at 52 Bundock St, Randwick, NSW 2031.

One final point. As the country will be changing over to the metric system soon, it would seem that all lengths and depths should now be listed in feet and metres. The conversions in the first list are done to the nearest 10 metres, and in the second list to the nearest metre, so it should be realized that these will give a false indication of accuracy if taken literally.

APPENDIX 1 - Provisional List (2nd ed) of the Longest Caves in Australia

| | ft. | m. | Cave | State | | ft. | m. | Cave | State |
|-----|----------|--------|---------------------|-------------|----------|-------|------|------------------------|-------------|
| 1) | 10 miles | 16.1km | Exit | - Tas | 28) | 4370 | 1330 | Tuglow | - NSW |
| 2) | 7 miles | 11.3km | Mullamullang | - WA | 29) | 4200 | 1280 | Dip | - NSW |
| 3) | 11000 | 3350 | Herberts Pot | - Tas | 30) | 4040 | 1230 | Markham | - Qld |
| 4) | 11000 | 3350 | Mammoth | - NSW | 31) | 4000 | 1220 | Loons | - Tas |
| 5) | 10630 | 3240 | Johannsens | - Qld | 32) | 4000 | 1220 | Eagles Nest System | - NSW |
| 6) | 9700 | 2980 | Royal Arch | - Qld | 33) | 4000 | 1220 | Southern Tourist | Jenolan-NSW |
| 7) | 7500 | 2290 | Wet - Georgies Hall | - Tas | 34) | 4000 | 1220 | Easter | - WA |
| 8) | 7500 | 2290 | Sand | - SA | 35) | 4000 | 1220 | Taplow | - NSW |
| 9) | 7000 | 2130 | Victoria | - SA | 36) | 4000 | 1220 | Queenslander | - Qld |
| 10) | 7000 | 2130 | Niggle | - Qld | 37) | 3950 | 1200 | Trog Dip | - Vic |
| 11) | 7000 | 2130 | Cave Spring | - WA | 38) | 3900 | 1190 | Mt Hamilton | - Vic |
| 12) | 7000 | 2130 | Colong | - NSW | 39) | 3550 | 1080 | Scrubby Creek | - Vic |
| 13) | 6000 | 1830 | Northern Tourist | Jenolan-NSW | 40) | 3500 | 1070 | Camooeal (4-mile East) | - Qld |
| 14) | 5900 | 1800 | Weelawadji | - WA | 41) | 3500 | 1070 | Punchbowl-Signature | - NSW |
| 15) | 5600 | 1710 | Wiburds Lake | - NSW | 42) | 3500 | 1070 | Glen Lyon | - Qld |
| 16) | 5500 | 1680 | The Labyrinth | - WA | 43) | 3500 | 1070 | Carpentaria | - Qld |
| 17) | 5400 | 1650 | Croesus | - Tas | 44) | 3500 | 1070 | Five Corners | - SA |
| 18) | 5400 | 1650 | Newdegate | - Tas | 45) | 3200 | 980 | Francombes | - Tas |
| 19) | 5400 | 1650 | Welcome Stranger | - Tas | 46) | 3100 | 940 | Mitchells Crossing | - SA |
| 20) | 5300 | 1620 | Khazad-Dum | - Tas | 47) | 3100 | 940 | Honeycomb 1 | - Tas |
| 21) | 5300 | 1620 | Moparrabah | - NSW | 48) | 3000 | 910 | New Southlander | - Qld |
| 22) | 5300 | 1620 | Snake Hill | - SA | 49) | 3000 | 910 | Punyelroo | - SA |
| 23) | 5280 | 1610 | Fossil-Hogans Hole | - NSW | 50) | 3000 | 910 | Geck | - Qld |
| 24) | 5200 | 1580 | Kubla Khan | - Tas | 51) | 3000 | 910 | Fox | - SA |
| 25) | 5030 | 1530 | Spring | - Qld | 52) | 3000 | 910 | Koonalda | - SA |
| 26) | 4500 | 1370 | Cutta Cutta | - NT | 53) | 3000 | 910 | Marakopa 1 | - Tas |
| 27) | 4500 | 1370 | Olsens | - Qld | 54) | 3000 | 910 | East Deep Creek | - NSW |
| | | | 55) 3000 | 910 | Wyanbene | - NSW | | | |

TOTALS: NSW - 14 , NT - 1 , Qld - 12 , SA - 7 , Tas - 12 , Vic - 4 , WA - 5

As can be seen when comparing this list with the first edition of June 1971, an additional 30 caves have been added that come into the 3000' (910m.) or longer category. The changes in position have also been fairly significant, pointing out just how difficult it is to estimate lengths to any degree of accuracy.

APPENDIX 2 - Provisional List (2nd ed) of the Deepest Caves in Australia

| | | | | | | | | | |
|-----|------|-----|--------------------------|-------|-----|-----|----|----------------------|-------|
| 1) | 1020 | 311 | Khazad Dum | - Tas | 21) | 320 | 98 | Bone Pit | - Tas |
| 2) | 800 | 244 | Tassy Pot | - Tas | 22) | 320 | 98 | JF10 (unnamed) | - Tas |
| 3) | 720 | 219 | MiniMartin - Exit | - Tas | 23) | 310 | 94 | Warbla | - SA |
| 4) | 665 | 203 | Midnight Hole-Mystery Ck | - Tas | 24) | 310 | 94 | Execution Pot | - Tas |
| 5) | 560 | 171 | Growing Swallet | - Tas | 25) | 310 | 94 | Devils Pot | - Tas |
| 6) | 510 | 155 | Kellers Cellar | - Tas | 26) | 300 | 91 | Dribblespit Swallet | - Tas |
| 7) | 485 | 148 | Odyssey | - NSW | 27) | 300 | 91 | Elysium | - Qld |
| 8) | 470 | 143 | Satans Lair | - Tas | 28) | 300 | 91 | Croesus | - Tas |
| 9) | 450 | 137 | Niagara Rob | - Tas | 29) | 290 | 88 | Munra-el-elevyn | - WA |
| 10) | 450 | 137 | Revelation | - Tas | 30) | 280 | 85 | Weebubbie | - WA |
| 11) | 430 | 131 | Rift | - Tas | 31) | 280 | 85 | Tommy Grahams | - WA |
| 12) | 420 | 128 | Argyle Pot | - NSW | 32) | 250 | 76 | Owl Pot | - Tas |
| 13) | 410 | 125 | Grill | - NSW | 33) | 250 | 76 | Speaking Tube | - Qld |
| 14) | 400 | 122 | Fossil-Hogans Hole | - NSW | 34) | 245 | 75 | Niggle | - Qld |
| 15) | 390 | 119 | Mullamullang | - WA | 35) | 240 | 73 | Camooeal 4-mile east | - Qld |
| 16) | 390 | 119 | Col-in-cavern | - Tas | 36) | 240 | 73 | Great Nowranie | - Qld |
| 17) | 380 | 116 | Herberts Pot | - Tas | 37) | 240 | 73 | Canelan | - Qld |
| 18) | 365 | 111 | Drum | - NSW | 38) | 240 | 73 | Little Nowranie | - Qld |
| 19) | 350 | 107 | Rescue Pot | - Tas | 39) | 240 | 73 | Koonalda Cave | - SA |
| 20) | 325 | 99 | Pillingers Creek | - Tas | 40) | 240 | 73 | Kubla Khan | - Tas |

TOTALS: NSW - 5 , NT - 0 , Qld - 7 , SA - 2 , Tas - 22 (unfair!) , Vic - 0 , WA - 4

An additional 16 caves have been added to the first edition list of the deepest in Australia (June 1971), that come into the 240' (73m.) or deeper category. One cave has been dropped from the original list as it was not deep enough as suggested (Erebus Cave, Tas.). As can be seen from the above lists, a lot of work has yet to be done before we can compile a really accurate listing. There are too many caves estimated at the same length and depth. It appears that for a cave to get into the top 20-25 longest, it will have to be over 5000' (1500m.) long. To get into the top 20-25 deepest, it will have to be over 300' (91m) deep.

(NOTE - The Editor wishes to apologise to the author of this report for the compressed nature of it; this was necessitated by the quite sudden increased quantity of contributions to the Newsletter at a late date.

A LIMITED NUMBER OF REPRINTS ARE AVAILABLE FROM THE EDITOR

NULLARBOR, NEW GUINEA AND NEW ZEALAND

The historical introduction to "CAVES OF THE NULLARBOR" observed that " ... a well organized, properly equipped (diving) expedition may well spearhead a new era of exploration in the caves of the Nullarbor." (p. 10)

CEGSA attempted unsuccessfully to get such a trip under way after the Seventh Biennial Conference of ASF in 1968. Now a well equipped team led by Ian Lewis has succeeded in cracking some of the lakes in the deep caves like Cocklebidy and Weebubbie, showing that the huge dimensions are undiminished underwater. Speculation will now, no doubt, centre on the chances of getting into negotiable dry passages beyond. Apart from that, the significance for understanding of the origin and development of the Nullarbor deep caves of the recent discoveries is immense. Considerable support is lent to the theory that their genesis is related to a Pleistocene period of eustatic depression of sea level, since when they have been partially drowned by rising water table consequent on rises in sea level.

CEGSA proposes to publish later this year an Occasional Paper detailing the diving expedition. I am most grateful to Ian Lewis for this interim report in this Newsletter, and look forward to publication of the Paper.

Christmas also saw Australian cavers active in New Zealand, where several joined the exhilarating NZSS Expedition to the Mt Arthur region. A report on this and on recent work in New Guinea is included herein.

NZSS SUMMER EXPEDITION

by ANDREW J. PAVEY

The New Zealand Speleological Society's Summer Expedition to the Ellis Karst Field, Mt Arthur, discovered, explored and surveyed a new deep cave, Gorgoroth, which is now second deepest in the Southern Hemisphere (after Harwoods Hole) at 1140'. The cave's two entrances link at the 600' level. One of these has only two pitches, 140' and 450', the latter being an Australasian record for the longest inside a cave, and among the deepest in the world. The cave was explored exclusively using single rope techniques of abseiling and jumaring, these techniques being introduced to New Zealand by the Australian contingent of the team; these single rope methods have proven vastly superior to ladders in the conditions found.

Eleven Australians participated - Paul Caffyn (leader, NZSS, ex-UQSS), Ted Anderson (SUSS, UNSWSS), Keith Dekkers (NZSS, ex-WASE), Tony Dowling (SSS), John Dunkley (SUSS), Kathy Hurricane (UQSS), Phil Irvine (SSS), Julia James (SSS), Neil Montgomery (NZSS, SSS), Andrew Pavey (UNSWSS), Henry Shannon (UQSS, SUSS).

The total party of 21 camped two weeks in a (sometimes) dry lake bed below The Twins (5990'), exploring Blackbird Hole (1040', now third deepest), Coriolis Chasm (630' with a shattering 500' entrance pitch), Terylene Tomo (550'), Slingshot Tomo (320') and a host of lesser ones in the Ellis Karst Field ranging down from 270' to 50' or less.

The trip ended on a sad note when "Jude" - the Long Range Caving Group's decrepit, yet beloved 1937 Chev truck finally expired with a conrod through the engine casing. Long may it be remembered by all who drove, rode or pushed their way to NZ's remotest caving areas.

The superb hospitality shown by the New Zealanders will be repaid when they visit our relatively puny caves during N I B I C O N later this year.

NULLARBOR DIVING EXPEDITION

by IAN LEWIS

The Expedition covered three main caves: Weebubbie, Cocklebiddy and Mullamullang, with brief visits to Abrakurrie, Murra-el-elevyn, Pannikin Plain and Kestrel Caves. The complement included 7 divers of whom 4 did most of the work in 2 groups of 2.

Weebubbie Cave

One week was spent camped around the entrance. During the week Nick White (VSA) and Mike Miles (Sydney) found 650' of passage circumnavigating the entrance doline, including a new chamber 150' x 80' x 40' high which contained very large mounds of quite fresh guano. Thus it appears to be a major bat chamber, far eclipsing the one already known further round the doline. This was called the Eastern Ring Route.

250' of water filled chamber with broken rock floor was found beyond the small lake with a maximum depth of 85'. A 3' high flattener at the end of the chamber was not entered due to silting. Six different specimens of weed were recovered from this lake and taken by Nick White to Melbourne.

A 300' long sump was negotiated beyond the main lake, leading to New Lake, which is oval shaped, 150' x 100' x 12' deep at the shallowest, and having a maximum roof height of 18'. A further extension 250' long and up to 100' deep was entered beyond New Lake. It consists of a sump and tunnel 100' wide closing off to 3 tunnels of 4' diameter at the end. The main sump reached 90' at some points; the floor is all very clean white broken rock with weed for some distance (samples were collected both by us and by Murray Thomas of WASE) extended in vast amounts throughout the length and depth of the main lake. The roof of the main sump was no less than 50' below the surface. The "Railway Tunnel" (the name will stick, I hope) is exactly 500' long to the point where it closes down to a 10' x 10' tunnel, and standby divers in the main sump could clearly see the torches of the advance divers 500' away without any trouble!! Two tunnels off the side of the Railway Tunnel each about 15' x 15' were simply left for the future; both disappear into darkness. Maximum depth of the Railway Tunnel is 100' and roof height was 60' below water level.

The main lake was plumbed all round and found to vary in depth from 45' to 100' near the walls, with an average in the 70s.

Cocklebiddy Cave

1000' of passage found beneath the lake, still going. Only 2 small air pockets were found, one 40' in diameter and 1' high, the other 50' x 12' x 18' high. Maximum depth of the tunnel is 40' and the diameter is 60' - 70'. A dig was commenced in the south end of the entrance valley to the cave using gelignite. The chamber excavated is 15' x 8' x 6' deep and air is howling out. A rare spectacle was witnessed as a waterfall poured over the entrance pitch of the doline after a 1½" downpour in 3 hours.

Murra - el - elevyn Cave

A new crawl was located extending laterally from the lake just above water level. A new chamber at the end contained salt or gypsum encrustations, a 30' deep lake and a new bat colony.

Pannikin Plain Cave

Both lakes were dived with snorkels only, and both were seen to have large underwater tunnels leading off into the unknown. A "dead cert" for a future diving trip. A blind spider was found similar to a specimen in Weebubbie found earlier.

Mullamullang Cave

All lakes were dived with snorkels and all were established to be going nowhere. Maximum depth is 15'. A new addition to Easter Extension was entered - 400' of maze generally heading almost due southeast. 14 side tunnels were not entered as the survey was made, due to lack of time. We were actually pushing as close to southeast as possible because I wanted to see if there was another nearby major passage parallel to the main one. Clearly there are still immense possibilities in Mullamullang and elsewhere on Nullarbor.

NEWS FROM NEW GUINEA

by R. MICHAEL BOURKE

The Port Moresby Speleological Society, sometime member of the Australian Speleological Federation, is no longer active although the Society's equipment and records are still kept by old members. However at several large centres there are active cavers who are largely unaware of cavers at other centres.

On Bougainville, Peter Robertson (VSA), Peter Hawkes (CEGSA), Wayne Goedecke (CEGSA) and Sue Eager (VSA) have been exploring and surveying Boromai Cave during 1971. At least a mile of passage is now known and the cave has been written up in ASF Newsletter and elsewhere.

In the Rabaul area, Michael Bourke (UQSS) and Harold Gallasch (ex-CEGSA) have been discovering and exploring caves on the Gazelle Peninsula of New Britain as well as the occasional trip to caves on New Ireland, The Trobriand Islands and the Morobe district. Ten caves worthy of the name are known on the Gazelle. Recent activity included a Xmas-New Year trip by Alan Keller (TCC) and Mike Bourke to the Rabaul Range (6000ft) in the Baining Mts, but they have only a few 80ft pots to report. Alan has found a new way to go inside a cave - by helicopter! That was inside the lip of a doline of a 1000-1500ft deep (?) pot no less than $\frac{1}{4}$ mile wide at the top!

Up in the Southern Highlands, there is an active group led by John van Amstel. Neil Ryan (UNSWSS) is also in the same district and getting underground. Japanese cavers were in the highlands for a month long expedition last year.

The most systematic speleos are C.D. Ollier from ANU and David Holdsworth from the University of Papua and New Guinea, who have concentrated in the Trobriands. Who would blame them when the renowned anthropologist B. Malinowski said of the people there:

"Chastity is an unknown virtue amongst these natives ... As they grow up, they live in promiscuous free love ... Unmarried girls are openly supposed to be quite free to do what they like." !

(Argonauts of the Western Pacific, 1922, p. 53)

Ollier and Holdsworth have published a series of papers on the caves, their paintings and pottery in Helictite.

There are also isolated cavers at Kavieng on New Ireland and at Goroka in the Eastern Highlands. Fred Parker (SSS), based in Daru, Western Papua, has been publishing earlier exploits in the Highlands and Bougainville.

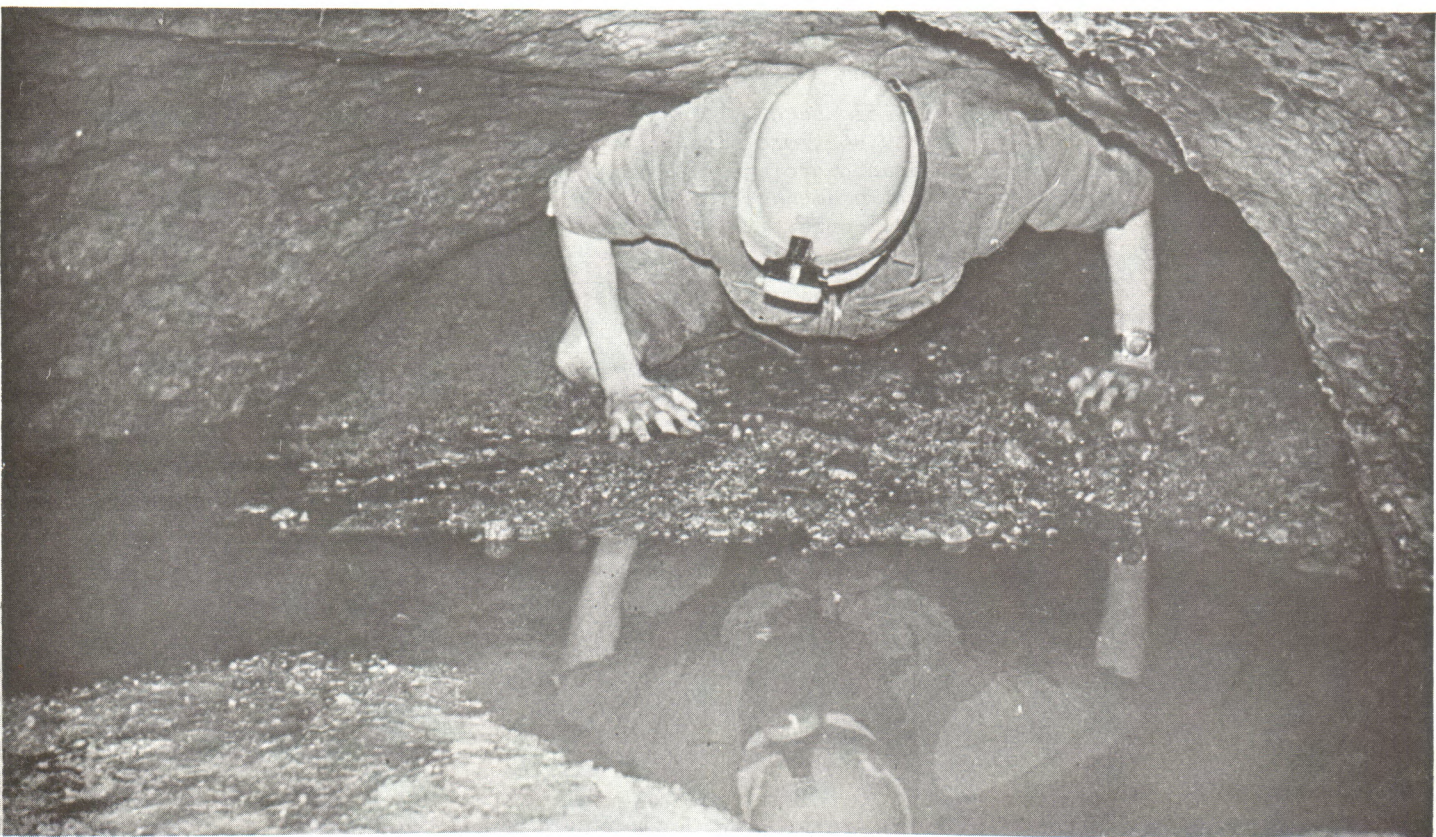
The final bit of news is that a U.S. expedition is coming. A group in Alabama who have visited the Lepineux shaft and Tete Sauvage entrances to Pierre St Martin (deepest cave in the world) and some of whose members were in the first party into Sotano de las Golondrinas in Mexico (1100ft entrance pitch), plan a 10-man expedition of 6-8 weeks in 1973. They are interested in deep caves with falls of 1000ft or so, and plan to concentrate on New Britain, New Ireland and the New Guinea Highlands.

FREE ADVERTISEMENT

ASSOCIATED PORTLAND CEMENT MANUFACTURERS (Australia) LIMITED

The Annual General Meeting of the abovementioned company will be held Mosman Town Hall, 573 Military Road, Mosman, NSW, on Friday, 28th April, 1972 at 3pm.

Persons desirous of a good afternoon's entertainment will be very welcome but you must either be a member of the company or hold a proxy



Top: Main Lake, Weebubbie Cave, Nullarbor Plain. The lake is 500' long, up to 100' wide and 90' deep. (photo: J.R.Dunkley)

Bottom: Negotiating the Dry Siphon, Mammoth Cave. This is the only route to northern section of the cave (see review within). (photo: I.Callendar)

A CAVE NUMBERING SYSTEM FOR N. S. W.

by G. MIDDLETON and R. ELLIS

(EDITOR'S NOTE: In 1970 the authors outlined proposals for systematizing the numbering of caves in New South Wales (Ellis & Middleton 1970), and attendant matters. In August of the same year the NSW Coordination Committee of the A.S.F. asked them to prepare formal recommendations on the scheme. Their final report was published last year (Middleton & Ellis 1971). The recommendations made were discussed and accepted with very minor amendments by the NSWCC in 1972)

On Hamilton-Smith's 1967 Nomenclature Report

That formal endorsement by individual societies be given to the 14 recommendations contained in Hamilton-Smith's "Report of the Committee on Cave Nomenclature of the A.S.F." (adopted by the Federation in January 1968 (Hamilton-Smith 1971).

On the form of the Alpha-numeric symbol

That the alpha-numeric system defining a cave entrance should consist of one to three capital letters followed immediately (without separation) by any symbol) by an arabic number. This number should not be preceded by a zero. (examples: J13, B24, CL13)

On NSW Area Codes (excl. Macleay)

That the following area codes be used for the cave areas indicated:

| | | | | | |
|-----------------|-----|------------------|-----|---------------|-----|
| Abercrombie | A | Comboyne | CB | London Bridge | LB |
| Apple Tree Flat | ATF | Cooleman Plain | CP | Marble Arch | MA |
| Ashford | AS | Crawney Pass | C | Michelago | M |
| Attunga | AT | Cudgegong | CU | Molong | MO |
| Bakers Swamp | BS | Delegate River | DR | Moore Creek | MC |
| Barrington | BA | Dripstone | D | Mount Fairy | MF |
| Barry | BY | Ebor | E | Mudgee | MG |
| Bendithera | BD | Ettrema Gorge | EG | Murrumbidgee | MRC |
| Bibby Harbour | BH | Geuri | G | Narrengullen | N |
| Billys Creek | BC | Gloucester | GL | Nelungaloo | NE |
| Blue Rock | BR | Grafton | GR | Paddys River | PR |
| Boduldura | BO | Hollanders River | HR | Queens Pinch | QP |
| Borenore | BN | Indi | I | Rosebrook | R |
| Bowan Park | BP | Isaacs Creek | IC | Stuart Town | ST |
| Buckaroo | BK | Isis River | IR | Sulcor | S |
| Bungonia | B | Jaunter | JA | Taemas | TM |
| Burrans Burran | BB | Jenolan | J | Tuglow | T |
| Canomodine | CM | Jerrara | JE | Walli | WA |
| Canowindra | CA | Jounama Creek | JC | Wee Jasper | WJ |
| Cave Flat | CF | Kybean | KY | Wellington | WE |
| Cheitmore | CH | Lannigans Creek | LC | White Rocks | WR |
| Church Creek | CC | Limekilns | L | Wombeyan | W |
| Cliefden | CL | Little Wombeyan | LWC | Wyanbene | WY |
| Coco Creek | CO | Lobs Hole | LH | Yarrangobilly | Y |

On Non-limestone Caves

That special prefix letters be assigned to three categories of non-limestone cave areas viz:

Natural Arches and Tunnels XA Sea Caves XS Miscellaneous XM

On a Nomenclature and Numbering Committee

That a Committee be appointed and assigned the responsibility of:

- i) assigning cave numbers
- ii) assigning societies to carry out the tagging operation
- iii) arranging and publishing of cave numbers
- iv) keeping a true record of the cave location

On Cave Entrance Number Tags

That the full alpha-numeric symbol assigned to each cave entrance be indicated by a small metal tag, preferably of aluminium (not exceeding 2" x 2", except under special circumstances) affixed to the rock at the entrance by a suitable nail, bolt or screw, at such location as would be visible to any person looking for such tag.

N. S. W. MAP NUMBERING

by ANDREW J. PAVEY

Introduction

For some time now each of the major speleological societies in NSW has individually and sequentially numbered all cave maps in their possession. These individual numbering systems cover not only the maps produced by that Society but also maps in the possession of that Society but originating from elsewhere both within and outside N.S.W. Because these sequential systems contain "foreign" items they are not considered to be suitable for widespread intrastate use.

A knowledge of available cave maps within the state is necessary to avoid duplication by work and when such an index is compiled it is necessary to have a catalogued map number by which to refer to each individual map, especially in the case of caves like Mammoth of which there are at present no less than 63 maps.

Proposed Map Numbering Scheme

Since the current map numbering systems are unacceptable for general intrastate use it is necessary to conceive a new numbering scheme. The new numbering system should be

1. expandable to allow for future growth
2. simple in application
3. compatible with cave data indexing and electronic data processing

A sequential numbering system was rejected because it is in effect a chronological listing, not the most efficient method especially as we are more interested in maps of caves and of cave areas, in that order. The system proposed consists of four sections:

The First character is a state number. This allows generalization of the indexing to cover all Australian caves. The numbers proposed are the PMG state codes viz. NSW is 2

The second character is the cave area index as laid out by the NSW Committee on Cave Nomenclature and Numbering.

The third character is the cave entrance number. The lowest (numerically) cave entrance number is used for multiple entrance caves.

The fourth character is separated from the third by a period and consists of the map number for that cave; these are listed chronologically from the date of notification of existence of the map.

e.g. a map of the Railway Tunnel, Mammoth Cave, Jenolan, appears as 2J13.21.

Inspection of the number thus indicates which cave area, which cave and in which state.

N.S.W. Cave Map Index

A cave map index to all currently known maps within the state has been compiled. This lists approx. 620 cave maps and will be published when a satisfactory numbering system, as proposed above, is generally acceptable. I had intended to present this report with the lists at the last meeting of the Coordination Committee but was prevented due to circumstances beyond my control during the meeting. COMMENTS, SUGGESTIONS etc. ABOUT THE INDEX AND THE NUMBERING SYSTEM ARE INVITED - write to A.J. Pavey, School of Physics, University of N.S.W., Kensington, NSW 2033. Comments from interstate are also solicited.

Acknowledgments

Excellent cooperation in compiling the index was received from the people and clubs:

Joe Jennings, John Dunkley, Greg Middleton, Bob Hawkins, Gleniss Wellings,
Ray Rowney, Lloyd Robinson, Keith Oliver, Richard Lansdowne, Col Carter,
CSS, SSS, SUSS, MMS, MSS, BMSC, UNSWSS, ISS, KSS, CSA

A. S. F. COMMISSION ON BIBLIOGRAPHY

-- REPORT FOR 1971

by G. J. MIDDLETON

Inception

The Commission was established by resolution of the ASF Committee at the Eighth Biennial Conference, 29/12/70, with the following terms of reference:

1. To compile indices and/or abstracts of all published information on Australian caves or cave science.
2. To co-operate with the Handbook Commission as necessary in making appropriate information available.
3. To co-operate with the appropriate Commission of the International Union of Speleology.

Membership

The first Convenor of the Commission, elected by the ASF Committee on 30/12/70, is Gregory Middleton. Five other members have since been co-opted, namely: Ross Ellis, Elery Hamilton-Smith, Kevin Kiernan, John Taylor and Gleniss Wellings. These individuals are interested in furthering the work of the Commission and have indicated they are willing to prepare abstracts on a continuing basis. A growing number of other people, now 16, have also agreed to prepare abstracts covering particular journals, subjects or areas. Indeed, the only state not now represented among regular abstractors is South Australia.

Australian Speleo Abstracts

The Commission is not charged with the responsibility of publishing the abstracts which it prepares, this function being performed by Australian Speleo Abstracts, a publication of SSS with which the Federation has agreed to be associated.

The first issue of A.S.A., covering the period January-June 1970, was prepared prior to the Eighth Biennial Conference under the editorship of the present Convenor of the Commission. 300 copies were printed and it is pleasing to note that after 12 months only about 12 copies remain. 400 copies of each issue are now printed. Issue 1970(2) was published in June 1971 and included an author index to the two 1970 issues, which contained a total of 725 abstracts.

The third issue, 1971(1), due for publication in December, was slightly delayed because of the Editor's personal commitments but has now been published; it contains a record 577 abstracts. Appended to it is an index to the first 30 issues of ASF Newsletter, prepared by the Convenor with the agreement of the Newsletter Editor. It is hoped that it will be possible to publish other such bibliographic items as supplements to later issues. Copies of the index are also available separately for 25c.

Annotated Bibliography of Australian Caves

The matter of retrospective abstracts (I.E. prior to 1970) has been given consideration by members of the Commission. It is felt that too much material exists for the thorough abstracting undertaken for current publications to be feasible, therefore, something more akin to an annotated bibliography is contemplated. Such a work was begun by Bud Frank in 1966; Mr Frank, now in Jamaica, has been kind enough to pass on the reference cards he compiled (approx. 500) to the Convenor and it is intended to add to these as time permits. At some future suitable date it is hoped that a comprehensive pre-1970 annotated bibliography can be published. Persons interested in assisting in its compilation are invited to contact the Convenor of the Commission.

International Union of Speleology

The Convenor has established contact with the Convenor of the IUS SubCommission on Bibliography, Dr Reno Bernasconi, and A.S.A. is being exchanged for Bulletin Bibliographique. Notice of the existence of the ASF Commission and A.S.A. appeared in the IUS Bulletin.

The continuing interest and support of the President, Elery Hamilton-Smith, for the preparation and publication of the abstracts is greatly appreciated, as is that of all abstractors. Deserving of special mention are the efforts of Andrew Pavey, who sometimes managed to have the abstracts of SPAR to me before it was published; Kevin Kiernan, who ably covers the very active scene in Tasmania, and Ross Ellis, who is always ready to do a few more abstracts as the publication deadline approaches. I am also especially grateful to Cmdr Trevor Shaw in England, who keeps an eye on the European scene for us, and to other interstate abstractors Mike Bourke, Nick White, Dave Gillieson and, most recently, Peter Bridge, who cover TPNG, Victoria, Queensland and Western Australia respectively. Many members of SSS have been of invaluable assistance both in the preparation of abstracts and the collating of A.S.A.

In a practical way the most significant contribution has been made by Lyn Williamson, who typed most of the first and all of the second and third issues - a task requiring exceptional typing ability coupled with unbelievable patience and fortitude. Typists with legal training are hard to come by but are invaluable for such demanding work. My special thanks also to Ross Ellis who has taken a very great interest in all aspects of the production of the abstracts and has done a great job of printing the 8000 odd pages so far produced (with the exception of the cover of the second and third issues, printed by Bob Lewis and Bob Hawkins respectively).

Finally, I would like to thank those editors who have sent me, unsolicited, their newsletters, namely: SUSS Bulletin, SPAR, Calcite, Oolite and CEGSA Newsletter. I hope they will continue to do so - others would certainly be appreciated.

CONSERVATION ACTION

QUEENSLAND

Chillagoe - Mungana

After the Forestry Department of Queensland drew up plans for National Park extensions in the area, the exploration wing of Mt Isa Mines (Carpentaria Exploration) applied for leases over part of the proposed extension. Details of the precise areas involved are not known at present. The Company seeks to lease contact zones between granite and limestone and apparently not after the limestone as such. A Wardens Court has made one decision in favour of the Forestry Department and has now adjourned until the third week of March for the remaining application. The mining Company is said to have arranged for good representation in Court and at the adjourned hearing it is likely that the decisions reached will take into account some data obtained from the work of SSS in the area.

by an anonymous correspondent

Fanning River

North Australian Cement (Which holds the minority interest in Central Queensland Cement of Mt Etna fame) holds an Authority to Prospect over two known caves in the area and a third cave, which is considered a Miniopterus sp. maternity site, is very close to the boundary although its precise location is not known. While no plans to mine are imminent it is hoped that a measure of protection for the caves will be gained when the leases are granted. Resources do not permit - and it is doubtful if the area justifies - a full campaign for National Park protection of the caves, the main problem lying in the pre-existence of an Authority to Prospect. Being small the area could not attract public support in the way Cooloolool did.

In both the above cases, the Queensland system of granting leases militates strongly against any opposition as the leases are only required to be advertised locally and are thus easily missed or the description of the land not readily recognised.

PUBLIC INSPECTION OF BUNGONIA

by B. S. NURSE

On 22/3/72 a Mining Wardens' Court was to begin hearing objections to the granting of a mining lease applied for by Australian Portland Cement Manufacturers (Aust.) Ltd. If granted this lease would ratify the dumping of overburden into Bungonia Creek and would allow this company to continue quarrying into the mouth of Bungonia Gorge. A secondary result would be the greater likelihood of the Caves Reserve itself being exposed to quarrying as intimated by a B.H.P. quarryman.

To enable the public to fully understand the importance of the matter, SSS decided to organize a Public Inspection of Bungonia Caves Reserve on 19-20/2/72. The weekend was publicised through newspapers, press releases and invitations to interested groups, about \$200 being spent on this. Activities during the weekend included:

1. Inspections at Bungonia Lookdown, Mt Ayres Lookout, Adams Lookout and Jerrara Lookout, where information officers were stationed to handle further enquiries.
2. Walks through the Gorge by a total of 300 people of all ages, walkers being supplied with information sheets.
3. Walks around the plateau to show some cave entrances. The first chambers of the Grill (B44) and the Drum (B13) being entered. About 250 participated.
4. A film and slide evening on Saturday evening 230 people.
5. The Grill Cave was lit electrically for the first time and parties of up to 30 were taken down to the horizontal ladder about 350' inside.
6. An information tent showing maps of the Reserve, proposed leases, maps of caves and photographs of the area, historical researches etc.
7. A catering service to supply tea, coffee, biscuits, cold drinks etc.
8. Publicity in the form of a Keep Bungonia Gorgeous pamphlet, a Bungonia Caves Reserve information sheet, a similar sheet for the Gorge, and car stickers.
9. Donations collected at the gate of 40c. per adult and 10c. per child.
10. Organization of the weekend entailed about 46 people, and in particular 10 people meeting weekly for 4 weeks for planning.
11. A little over 900 attended with 400 signing the visitors book. All seemed to consider the weekend successful.
12. Total expenditure was about \$650 and profit of about 1250 will be given to the Bungonia Committee

R E V I E W

The Underground Rivers of North-western Puerto Rico by G. J. Nelson
Published by the author, undated, 16pp., 4 maps.

Some years ago many Sydney cavers had the pleasure of seeing the excellent slide lecture of Bro. Nicholas on the Rio Camuy caves in Puerto Rico. Imaginations were really stirred by the immense size of the dolines, the underground passages and rivers and the fact that in a very densely populated country very little serious speleology had been carried out despite the immense areas of karst and underground drainage. Few people here were aware that much of the recent exploration in this region has included an Australian, Grahame Nelson Ph.D., a foundation member of Blue Mountains Speleological Club, NSW. This small book is intended primarily as a historical record which will aid the government of Puerto Rico in planning preservation and commercialization of the caves, which rank among the most spectacular in the world. Dr Nelson is now working at Narrabri, NSW. BMSC may be able to help those with a serious interest in this publication.

DOWN UNDER ALL OVER

B M S C Major project work continues at Abercrombie with cave numbering and tagging, digging in Grove Cave and further exploration. Other trips have gone to Little Wombeyan Creek, Cliefden, Colong and especially Tuglow where digging is also under way. The club has a policy of following even the unlikely leads on caves and recently broke new ground at Carlos Gap and Excelsior, County Roxburgh. The former located limestone but no caves or sinks, the latter found two short caves off an old water-filled quarry. Clandulla & Brogans Ck also visited.

C E G S A The Annual Report for 1972 provides a good review of recent achievements the most notable of which is the Nullarbor diving expedition, an account of which appears elsewhere in this issue (a fuller account of work in 1971 elsewhere in South Australia will appear in the next issue of ASF NEWSLETTER).

C Q S S In his report to the Fourth AGM of the Society, President Mike Lester reports several caves and new extensions, two practice S & R operations, the donation by a Rockhampton service club of a rescue stretcher, also pursuing conservation with a float in the local Capricornia festival. Surveying in Johansens Cave has put it over the two mile length mark - a major Australian cave.

H C G has been assisting BMSC at Abercrombie, providing RDF equipment. At Christmas many members joined with Sydney Teachers College Caving Club in a long trip taking in Naracoorte and the lava caves of western Victoria.

K S S A report of limestone plus caves in Bull Creek, a tributary of Kunderang River resulted in an abortive bush bash which located an attractive, very narrow gorge but no limestone, still less caves, although the presence of limestone further upstream is suspected. Most of the cave visits in the Macleay have been by UQSS and NUSS, according to KSS.

M S S Reports 31 members with trips to 21 areas in 1971. Acquisition of a gas analyser capable of measuring CO₂, O₂, and N₂ in situ promises well and some preliminary trips have been undertaken. The December 1971 issue of MSS JOURNAL has a useful article on oxygen depletion in Grill Cave, Bungonia, with another on NiFe and NiCd batteries.

N U S S Only news is dated November 1971 in the form of a very thin newsletter, reflecting the year-end somnolence of a university society. However it does conclude an article on the year's work in bone collection which is one of the Society's main activities.

S C S has a list of Australian Cave Records in SOUTHERN CAVER 3 (1), in which it proudly announces itself as the most active speleological group in Australia in 1971, with 54 trips (there are some minor inaccuracies in the list -ed.). Meanwhile, for more news we are awaiting Kevin Kiernan, who is deeply involved in the Lake Pedder case, which reached a new crisis in March.

SSS has swung its considerable resources of manpower, money and method even more behind the Bungonia campaign. Member Joy Whaite has joined UNSWSS member Warwick Counsell in a new legal battle (see separate report). Christmas saw a wide ranging swing through S.E. Australia, taking in sea caves at Nadgee (South Coast NSW), Buchan (tourist trip), Port Campbell, Mt Eccles, Naracoorte and even Mootwingee, north of Broken Hill. SSS has been very active in the North Queensland area and the December 1971 issue of the Journal has a well illustrated article on aboriginal cave art from limestone caves and shelters on Cape York.

SUSS Publication of first part of the Society's definitive work on Mammoth Cave, Jenolan, has not lessened interest; trips are as numerous as ever. Major extensions to Wiburds Lake Cave have brought total length to over one mile and a Grade 6 map has been produced. 1972 work continues on geomorphology and hydrology, for which recent heavy rains produced ideal conditions. Highly productive trips early in 1972 cracked the Dry (!) Siphon in Mammoth Cave for the first time recorded while it was full (well, 1" air space). Assembling wet and shivering on the far side, the swimmers were first ever to see water in the flood passages.

TCC Apart from the preparation and final assault on Khazad Dum, much exploration has gone to Lake Timk below Mt Anne, the water from which drains underground to an unknown efflux. The spur ridge overlooking the lake from the east and south was searched - several large dolines, one cave only so far - may go - very challenging scoparia scrub ... "The scrub then gets progressively worse being a distinct hindrance on top of the ridge and b...y well near impossible on the other side ... on Sunday we decided to have a look further on, no packs, no lunch, no water sample bottles and no optimism ... on Monday we headed back to the top of the ridge, the scrub very quickly making progress an acrobatic feat". The search in this area will continue to attract the persistent sporting caver since the prospects for a challenging deep cave are definitely there (they must be - Henry Shannon says so!)

UNSWSS continues work at Bungonia where member Warwick Counsell rides into battle against quarry interests. But the Society has been active elsewhere - the December 1971 SPAR has maps of Narrangullen Cave and Janua Cave (Yarrangobilly). Meanwhile, the magnum opus, the great Tuglow, is now creeping at last towards completion and publication.

UQSS President Rob Dyne reports that UQSS has managed to absorb several members from the Queensland Institute of Technology and high schools. Conservation continues with sale of bat certificates and Mt Etna books. The year saw 31 trips with members active not only in Queensland but in Northern Territory, New Guinea, WA, NSW and several joined the NZSS Mt Arthur trip.

VSA A new editor for NARGUN, Dave North has been imported direct from U.K. and is continuing the good work. Monthly trips to Scrubby Creek Cave (M49) resulted in three new extensions bringing total length to over one mile. One is reached beyond Siren Sump, a 1 $\frac{3}{4}$ " to 4" air space over a distance of 300 ft ("... a new place to get gravel rash - on the end of your nose"). Beyond this obstruction the main passage sumps deeply a little further on but leads to the side are being pushed. Like Trog Dip, Scrubby Creek looks like being a master cave,

REVIEWS

Karst (Vol. 7 of "An Introduction to Systematic Geomorphology")

J.N. Jennings, 1971, Australian National University Press,
Canberra. 252pp., 40 plates, 69 figs., price about \$5-95

Reviewed by David C.Lowry

This is a very valuable book, excellently illustrated and well worth a place in the library of geomorphologists and speleologists. The book briefly covers the relevant fundamentals of petrology, chemistry and hydrology before embarking on a description and discussion of karst features both large and small, both above and below ground. It is a valuable book for at least four reasons:

1. Previous books on karst in the English language have been written either by geomorphologists or by speleologists. Jennings is both and does justice to both the surface and subsurface aspects of karst.
2. Lithology, structure and climate are virtually independent variables that affect karst development, yet texts on karst by North American or British writers tend to concentrate on karst developed on hard jointed limestone in Europe and North America. Jennings however is personally familiar with karst developed on a variety of limestones in a variety of climates. Australian readers will enjoy his discussion of examples drawn from the West Kimberley (Pleistocene aeolianite), the Nullarbor (porous Tertiary limestone in an arid to semi-arid climate) and Palaeozoic limestone in New South Wales, Tasmania and the A.C.T. The author also draws on examples from New Guinea, New Zealand, Europe, North America, the West Indies and Southeast Asia. The variety of morphology described and the variety of processes discussed is most impressive. One problem the speleologist faces is that unless he is widely travelled, he will become so familiar with a particular area that he will regard all its features as "normal" and fail to see the opportunities for original study. This book is a great help in broadening one's views.
3. Karst terminology in English publications is usually a chaos that includes a few local vernacular terms together with German and French terms and their translated equivalents. Jennings explains many of the foreign terms and outlines a simple system of nomenclature which will be of value if followed by future writers in English.
4. The book is extremely valuable to the student of karst who is not at home with the publications and languages of Europe. Many important topics of karst research are rarely discussed in English language publications, for example the role of climates past and present on karst development. This book provides an excellent review of such topics. For students interested in delving into the literature of karst, the 13 pages of bibliography are a wonderful opening.

One possible weakness of the book lies in the section that attempts to cover the relevant aspects of limestone petrology, carbonate solution chemistry and hydrodynamics. Lack of space prevents Jennings from developing a gradual rigorous approach suitable for the uninitiated, but on the other hand more advanced readers will find the section oversimplified.

Jennings' discussions indicate that there are many unresolved problems of karst morphology, and readers can be grateful for the simple summaries of conflicting views. The book also reveals some gaps in karst studies. For example readers are introduced to the modern classification of limestone in an early chapter, but later chapters deal with "limestone", "dolomite" and "chalk", and the terms "biosparite" and "lime packstone" are not seen again. This is a reflection of the fact that few people are both geomorphologist and carbonate petrologist and that the possible styles of carbonate deposition and diagenesis are so varied that recognition of their effects on karst morphology is very difficult.

The Exploration and Speleogeography of Mammoth Cave, Jenolan J.R.Dunkley
(assisted by E.G.Anderson). Published for Sydney University Speleological
Society by the Speleological Research Council Ltd, Sydney, 1971.
x + 53 pp., 21 maps, 31 photos, foldout diagram. Price \$2-75 inc. post.

Reviewed by Glenn S. Hunt

After reading through this latest in a series of high quality speleological publications one can only reiterate that Australian speleology has come of age. Perhaps "coming of age" means more that people realise the amount of wasted effort in the past by failure to document and that considerable satisfaction emerges from a job well done. It is heartening to see that the work of more than one club has contributed to the value of this book and it is hoped that even greater co-operation will emerge in future.

This is the second book to be published by the Speleological Research Council. Its aim is different from the in-depth multidiscipline approach of "CAVES OF THE NULLARBOR" and its style suggests it will have more appeal to the general reader. It is being followed, however, by a more specialised publication on the hydrology and geomorphology of the cave.

In general, the production and layout are pleasing and the text well written. An historical introduction to exploration of the cave is followed by more specific notes on the exploration of each section, routes through the caves, passage details and possibilities of further discovery. Each section of the cave is discussed in turn and illustrated with maps and photographs. Where scientific jargon falls short of his needs, the writer is not at a loss for superlatives, a simile or the short pithy quote to brighten things up. The monotony of large blocks of text is avoided by use of strange doodlings which in fact are tiny maps of the section discussed.

An outstanding feature is the quality of maps, due to the careful work of Ted Anderson. For this alone, a person interested in cave mapping should obtain a copy but he should not be discouraged from continuing to draw sketch maps whose value remains undepreciated. Perhaps the outlines are a little too bold and tend to "run" in places, but otherwise quality of drafting and symbolism of cave features is excellent. The "street Directory" layout is very useful and sectional maps can be quickly located from key maps. A speleologist interested in a particular section can readily xerox a map and use this as a basis for additions and detailed note-making in the cave. Tabulation of CRG grades etc. in an appendix is convenient and allows quick assessment of the quality to expect from each sectional map. Barring discoveries, only a few passages need to be added to the maps, including the morphologically significant Waterfall Passage. Some sections can be upgraded and more passage detail added.

Particularly impressive is the isometric diagram of the cave. This is an excellent method to convey overall three-dimensional impressions of levels and layout and should help in generating hypotheses. The shortcomings of the technique discussed by Anderson should be kept in mind. While it was necessary to explode parts of the diagram laterally to reveal details, perhaps inclusion of an unexploded diagram would have added to the value of the technique (sympathies to the draftsman). One or two developed longitudinal sections of major passages would also help interpretation.

Apart from printing errors and a transposed paragraph (p. 15), an odd lapse in the text raises a questioning eyebrow. For example on p. 45, "a more or less horizontal bedding plane squeeze" seems out of place in almost vertical beds.

Photographs have reproduced well and are not short of the grinning face or muddy backside to add human interest. It is unfortunate that plates are not numbered and appropriately referred to in the text, even though this might impair smooth flowing journalism. Some of the captions could be more descriptive and that for the plate on p. 30 appears misleading. I have looked in vain for joints controlling the flat roof. However, solution effects are evident including widening of joints perpendicular to the passage trend. Lineations standing in relief on the roof and running along the passage appear to be due to bedding.

From my personal point of view, reading through the text and looking over the maps bring back fond memories, memories of tight squeezes, excitement at a small discovery, and good companionship.

N I B I C O N I S C O M I N G

A . S . F . N I N T H B I E N N I A L C O N V E N T I O N

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WHEN?

Convention sessions December 27-28-29
CAVEMANS DINNER: Friday December 29

WHAT'S ON?

Seminars, symposia, displays, discussions,
demonstrations, photographic competition,
films and slides, conviviality ad nauseam.

FIELD TRIPS

Trips to all major NSW caving areas and to
minor areas according to demand and manpower.
Houses have been obtained near Yarrangobilly,
Jenolan, Bungonia with facilities including
electricity and even a bath. Especially
suitable for families.

SIGHT- SEEING

A unique opportunity to combine caving with
tour of Australia's premier city, See Bondi
Beach, Kings Cross, Opera House, go racing
at Randwick (just across road), Sea Caves
close by across the Harbour Bridge.

mammoth, the drum, wiburds lake, east deep creek, the grill, hogans hole,
basin, argyle hole B31, colong, big hole, wyanbene, tuglow, serpentine,
the efflux, restoration, J41, taplow, big cliefden, abercrombie arch,
eagles nest, murray, barbers, the dip, punchbowl, devils coach house . .

N I B I C O N I S C O M I N G

ABOUT OUR CORRESPONDENTS . . .

| | |
|----------------------|--|
| R. Michael Bourke | Expatriate member and former Secretary UQSS, now an agronomist on New Britain, best known for his early stirring in the Mt Etna dispute. |
| Warwick J. Counsell | Vice-President UNSWSS, chief protagonist and litigant in the Bungonia dispute, currently objector to lease applications of APCM (Aust). |
| Ross Ellis | Editor SSS Journal, mainly responsible for its improvement since 1965. |
| Glenn S. Hunt | Member SUSS, masters degree student in Zoology, University of NSW, author of papers on biology and Nullarbor geomorphology. |
| Ian Lewis | Member CEGSA, leader of 1971-72 Nullarbor Diving Expedition. |
| David C. Lowry | Member WASG, professional geologist from NZ, worked extensively on the Nullarbor for WA Geological Survey. Numerous papers in the field. |
| Gregory J. Middleton | Member SSS, best known for sterling work in Colong dispute, represented ASF NSW Coordination Committee as observer on Colong Committee. Interested in bibliographic and historical material. |
| Benjamin S. Nurse | President SSS, caving since early 1950s, has extensive experience in areas throughout Australia. |
| Andrew J. Pavey | Member UNSWSS, editor of SPAR, prolific caving correspondent, interested in vertical techniques, surveying, mountaineering, editor of THRUTCH, the Australian Climbing Magazine. |

ACKNOWLEDGMENTS . . .

| | |
|--------------------------------|--|
| Editing & typing | - JOHN R. DUNKLEY |
| Headings & cover layout | - EDWARD G. ANDERSON |
| Subscriptions & address lists | - IAN D. WOOD |
| Production & general hard work | - members of ILLAWARRA SPELEOLOGICAL SOCIETY especially Lloyd Robinson |

NOTE : The only member societies financial at the time of going to press were CEGSA, CQSS, HCG and SUSS. These are all members who can be counted upon to support the ASF when needed. This issue of the Newsletter, costing over \$150, has to be funded out of the Editor's pocket while some of the loud-mouthed complainants suit themselves when to pay. Post Office regulations prevent us from sending copies to other than bonafide subscribers. If you don't receive this or any future issues, perhaps it is due to the laxity of your club. The Editor is not prepared to go on 'lending' money to clubs who do not pay in the required time, which this year was by March 31st.

BACK ISSUES:

Copies of most back issues are still available, but earlier issues are scarce and becoming collectors items; some already are out of print. Later issues are larger, glossier and many have maps and photographs and are printed offset.

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* * SOME ARTICLES IN PAST ISSUES :

- 23 - Air Photos and Nullarbor Caves
- 28 - First Cave Fatality in Australia
- 30 - Cliefden Caves
- 32 - Early History of Rungonia Caves
- Water Tracing at Yarrangobilly
- 33 - Glass Cave, Wombeyan
- Further comments on ropes & knots
- 34 - Ice Formations at Yarrangobilly
- Subterranean Radio Propagation
- 35 - Review of Caving Helmets
- 36 - Mt Etna Caves
- 3 - The Physiology of Foul Air
- Lava Caves in Victoria
- 38 - Nomenclature of Australian Caves
- 39 - History of Abercrombie Caves
- 40 - Cave Conservation - Broader View
- 44 - Nullarbor 1969
- 45-6 - Cave Accidents in Tasmania
- How to manufacture fluorescein
- 49 - Practical Cave Conservation
- Explosives and Safety
- Use of Araldite 113
- 50 - Naracoorte extinct marsupial bones
- Biological Aspects Cave Conservation
- Bat Caves as Natural Laboratories
- 51 - Exit Cave, Tasmania
- The Descent of Tassy Pot
- Northern Territory Karst
- Cave Bones in Tasmania
- 52 - Conservation and Bungonia
- Exit Cave Field Trip
- Mullamullang Cave
- 53 - Trog Dip
- Caves and Karst, Junee-Florentine
- 54 - Easter Cave W.A.
- Speleo Publications in Australia
- Holloch - A review article
- New Guinea Caves
- 55 - Nullarbor Diving Expedition
- Cave Numbering System for NSW
- Cave Map Numbering
- Australia's longest & deepest caves
- 56 - Glacier Caves in New Zealand
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